

1 1. A method of allowing a video stream to be
2 displayed and recorded comprising:
3 allowing a first portion of a video stream to be
4 written to a storage medium while a second portion of a
5 video stream is being read from a storage medium; and
6 providing a zoom function so that the second
7 portion may be scaled for implementing the zoom function
8 while said first portion of the video stream is being
9 written.

1 2. The method of claim 1 further including allowing
2 the video stream to be written to a hard disk.

1 3. The method of claim 1 further including allowing
2 the video stream to be written to a random access media.

1 4. The method of claim 1 further comprising:
2 retrieving two or more frames of the video stream
3 shifted by different time delays;
4 displaying the two or more frames of the video
5 stream; and
6 allowing a user to select one of the frames of
7 the video stream as a starting point for playing back the
8 video stream.

1 5. The method of claim 1 further including providing
2 at least two pre-defined screen segments and allowing the
3 user to select one of the two segments to be scaled.

1 6. A method for enabling a user to automatically
2 record a television program comprising:
3 providing an electronic program guide; and
4 linking the program guide to a digital storage
5 device such that when a program is selected in the
6 electronic program guide the program is automatically
7 recorded.

1 7. The method of claim 6 further including allowing
2 said electronic program guide to be selected by mouse
3 clicking an icon on a television display screen.

1 8. The method of claim 6 further including allowing
2 said electronic program guide to be selected by operating a
3 remote control.

1 9. The method of claim 6 further including allowing
2 a first portion of a video stream to be written to a
3 storage device while a second portion of a video stream is
4 being read from the storage device.

1 10. The method of claim 6 further comprising:
2 retrieving two or more frames of the video stream
3 shifted by different time delays;
4 displaying the two or more frames of the video
5 stream; and

6 allowing a user to select one of the frames of
7 the video stream as a starting point for playing back the
8 video stream.

1 11. A method of enabling a video stream to be stored
2 and displayed at the same time comprising:

3 allowing portions of the video stream to be
4 alternately written to and read from a storage device; and
5 storing in a temporary buffer the next portion to
6 be written to the storage device while another portion is
7 being read from said storage device.

1 12. The method of claim 11 further including
2 displaying a portion of a video stream at least initially
3 delayed by a time delay, wherein when the time delay is
4 greater than a predetermined threshold, displaying the
5 video stream from the storage device and when the time
6 delay is less than the predetermined threshold displaying
7 the video stream without storing said stream.

1 13. The method of claim 11, further including
2 allowing one or more portions of the video stream to be
3 read from the storage device to retrieve the video stream
4 with one or more time delays that are user-specified.

1 14. The method of claim 11, wherein allowing the
2 video stream to be written to the storage device further

3 comprises allowing the video stream to be compressed prior
4 to writing the video stream to the storage device.

1 15. The method of claim 12, wherein allowing portions
2 of the video stream to be displayed from the storage unit
3 when the time delay is greater than the predetermined
4 threshold comprises decompressing the video stream after
5 retrieving the video stream from the storage unit.

1 16. An article comprising a medium for storing
2 instructions that cause a computer to:
3 allow a first portion of a video stream to be
4 written while a second portion of a video stream is being
5 read; and
6 provide a zoom function so that the second
7 portion may be scaled for implementing the zoom function
8 while said first portion of the video stream is being
9 written.

1 17. The article of claim 16 including instructions
2 that cause a computer to allow the video stream to be
3 written to a random access media.

1 18. An article comprising a medium for storing
2 instructions that cause a computer to:
3 provide an electronic program guide; and
4 link the program guide to a digital storage
5 device such that when a program is selected in the

6 electronic program guide the program is automatically
7 recorded.

1 19. The article of claim 18 including instructions
2 that cause a computer to allow a first portion of a video
3 stream to be written to a storage device while a second
4 portion of a video stream is being read from the storage
5 device.

1 20. An article comprising a medium for storing
2 instructions that cause a computer to:
3 allow portions of the video stream to be
4 alternately written to and read from a storage device; and
5 store in a temporary buffer the next portion to
6 be written to the storage device while another portion is
7 being read from said storage device.

Sub B1
1 21. A method of reading and writing data from a
2 storage device comprising:
3 storing data in a plurality of buffers; and
4 transferring data from at least two buffers at a
5 time to and from said storage device.

1 22. The method of claim 21 wherein the buffer size is
2 greater than or equal to the time it takes to read or write
3 from two buffers to and from the storage device.

Sub B1

23. The method of claim 22 wherein the buffer size is
greater than or equal to the time it takes to read or write
from two buffers to or from the storage device plus the
average seek time of the storage device per read or write
transaction.

Sub B2

24. An article comprising a medium for storing
instructions that cause a computer to:
store data in a plurality of buffers; and
transfer data from at least two buffers at a time
to and from said storage device.

25. The article of claim 24 wherein the buffer size
is greater than or equal the time it takes to read or write
from two buffers to and from the storage device.

25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1